

**REMARKS**

Claims 1-8, 10-12, 14-20 were pending in this application and have been rejected in the Office Action.

To summarize the claim changes made in this amendment, claim 1 has been amended and new claims 21-30 are added. No new matter is considered to be presented by these amendments and new claims in view of the support contained in the original filed application.

**Claim Rejections under 35 U.S.C. §102**

Claims 1-8, 10-12, 14-20 were rejected under 35 U.S.C. §102(b) as being anticipated by Ikenoya, USP 4,493,667. The Examiner recites that Ikenoya discloses the shroud wall and that the shroud wall is near the intake region/intake port.

Applicants respectfully submit that Ikenoya fails to disclose the subject matter of the claims, especially a shroud wall formed about a circumference of said one of pulleys, a feature of independent claim 1.

To help illustrate some of the differences between the claimed invention and Ikenoya, reference is made to Figures 4 and 5 of the present invention which show scroll surface 89 formed on shroud wall 90 and the inner surface of a transmission case 53 along the circumference of a primary pulley 56 which has fan blade 87 so as to increase the clearance in the radial direction of the pulley 56 between the outermost end of the fan blade 87 and the scroll surface 89 with the rotational direction of the fan blade 87.

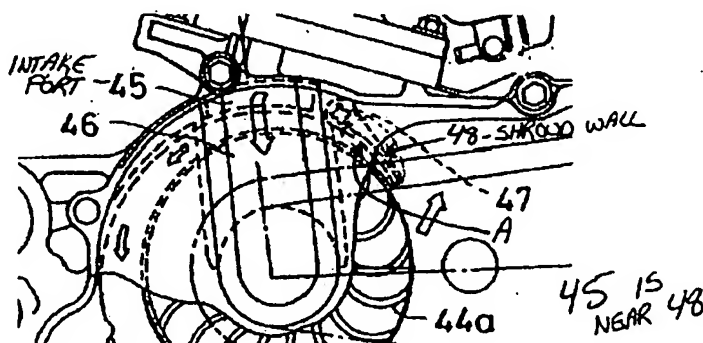
As seen, the shroud wall extends over the outer tip region of the blading and channels the output of the fan blade to the casing portion of the scroll surface. There is also featured an

arrangement wherein the interior surface of the shroud wall and the casing portion defining the shroud wall are continually formed so as to provide a continuous flow channel.

Furthermore, as exemplified by the embodiment of the invention shown in Fig. 5, the intake port 85a is formed near the shroud wall 90 so that the cooling air blows out from the intake port 85a and travels straight to the intake region Ai to effectively introduce the cooling air to the fan blade 87 and the scroll surface 89.

As the result, the fan blade 87 can securely collect the cooling air having passed through the intake port 85a by using the scroll surface 89 of the intake region Ai formed along top face 87a of the fan blade 87. Additionally, back pressure disturbing the flow of the cooling air can be suppressed.

The Examiner recites that Ikenoya discloses a shroud wall (defined now as character 48) that is near the intake port 45. As no reference character is present in Figure 2 for the shroud wall, see the Figure below.



The applicants respectfully submit that the object, defined as character 48 above, is not a shroud wall as defined in the present invention's claim 1. In the first instance, reference is made to Figure 10 of Ikenoya showing the cross-section of plate 48 relative to the pulley. It is respectfully submitted that one of ordinary skill in the art would not have considered that the relationship shown in Figure 10 between plate 48 of passage member 46 and the fan blade represents a shroud wall relationship as set forth in claim 1. That is, claim 1 of the present invention describes the shroud

wall as being positioned as to cover the outermost end of said fan blade such that a flow of said cooling air radially exiting from said outermost end of said fan blade is channeled by said shroud wall until reaching to said case defined scroll surface. As a result of this arrangement, the flow exiting the fan blade is securely collected in the clearance defined by the scroll surface on the shroud wall and channeled along a circumference of the outermost end of the fan blade until reaching the casing portion of the scroll surface. This would not be the case with the radially extending thin plate of Ikenoya which would function as an air stream divider and not an air stream channeler. In other words, the object, defined as character 48 above, is not positioned as to cover the outermost end of said fan blade such that a flow of said cooling air radially exiting from said outermost end of said fan blade is channeled by said shroud wall until reaching to said case defined scroll surface. Rather, as can be seen from Figure 10, for example, the referenced portion in the Office Action is merely a thin plate, radially extending foot portion 48 (Fig.9) which is located behind the stationary drive face element 16 of the drive pulley 8 and is a plate member that extends parallel with the dividing wall 41. This plate member is designed, with the assistance of bosses (not shown), to support "passage portion 49" which bridges the dividing wall 41 and also to help in keeping air within the respective sectioned air chambers A and B. Thus, the plate member 48 follows the contour of the pulley in order to provide a lateral flow blocking feature between chambers A and B with reliance being placed, instead, on bridging passage portion 49 for A to B chamber air passage communication.

Also, Applicants respectfully submit that Ikenoya does not disclose the feature of claim 23 which includes an intake port that feeds cooling air initially into said case and is positioned adjacent said fan blade and such that said cooling air that is exiting from said intake port is laterally directed into contact with said fan blade with the assistance of the shroud wall's interior surface. This feature in new independent claim 23 describes an intake port that feeds cooling air initially into said case at

a position adjacent said fan blade and such that said cooling air exiting from said intake port is laterally directed into contact with said fan blade with containment assistance provided by the shroud wall. As the result, the fan blade can securely collect the cooling air having passed through the intake port by using the scroll surface on the shroud wall about a circumference of said one of the pulleys.

On the other hand, Ikenoya discloses a communication passage 45 which starts from the chamber A and extends laterally over in bridge fashion to the outer periphery of the drive pulley 8, and then down the outer side surface of the drive element 16 until terminating in a central portion of the drive face element 16 at which is located the free end of the drive shaft 7 (see. Col.4, line 66 – Col.5, line 4). The communication passage 45 introduces air into the central portion of the drive face element 16 (see Fig. 2 and 3). Thus, Ikenoya does not feature an intake port that laterally feeds the intake air into the fan blade while utilizing the interior scroll surface on the shroud wall to help retain the lateral flow of the intake air into the fan blade (see Figure 4, arrow adjacent 87 of the present application for an example).

Moreover, it is further noted that Ikenoya focuses on providing a passage member 46 for the purpose of feeding the cooling air to the central shaft portion of the drive face element 16 so that the peripheral wall 40 extends outwardly so as to provide the second passage portion 50a (see col.5, lines 15-21 with casing seals 51). This teaches away from the arrangement described in claim 25 of the present invention.


Reference is also made to new independent claim 28 which is similar in many respects to claim 1 and which includes language describing the continuous flow surface defined by the merged or blended shroud wall defining portion and case defining portion of the scroll surface. For example, with reference to Figure 5 of the present application there can be seen an embodiment wherein the shroud wall portion of the scroll surface is continually formed relative to the case

defining portion of the scroll surface so as to provide a continuous flow channeling surface. As the radial plate 48 of Ikenoya is designed as a lateral air flow blocking device and thus extends radially out from the outer edge of the pulley and not as a scroll surface it does not have an interior flow control surface that merges in a continual fashion with a flow control surface of the casing, which deficiency is not surprising in view of plate 48 being provided for a completely different purpose.

Accordingly, Applicants respectfully submit that independent claims 1, 23 and 28 and their dependent claims are patentably distinguishable over Ikenoya.

In view of the above remarks, Applicants submit that all rejections raised in the Office Action are overcome such that the application is in condition for allowance. Applicant looks forward to confirmation of the same at the Examiner's earliest convenience. Also, if any fees are due in connection with the filing of this amendment, such as fees under 37 C.F.R. §§1.16 or 1.17, please charge the fees to Deposit Account 02-4300; Order No. 032405R172.

Respectfully submitted,  
Smith, Gambrell & Russell LLP



---

Dennis C. Rodgers, Reg. No. 32,936  
1850 M Street, N.W., Suite 800  
Washington, DC 20036  
(202) 263-4300  
(202) 263-4329 (fax)

Dated: June 19, 2007